

METHOD AND SYSTEM FOR STORING INFORMATION USING NANO-
PINNED DIPOLE MAGNETIC VORTICES
IN SUPERCONDUCTING MATERIALS

ABSTRACT OF THE DISCLOSURE

5 A method includes providing a superconducting
material having pinning sites that can pin magnetic
vortices within the superconducting material. The method
also includes pinning one or more magnetic vortices at
one or more of the pinning sites. An information storage
apparatus includes a superconducting material, doped
particles within the superconducting material that can
pin dipole magnetic vortices, a magnetic tip that
10 generates pinned magnetic vortices and a magnetic
detector that detects pinned magnetic vortices.

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